

**Claims:**

1. A method of monitoring network connectivity between a home network device and a network, comprising:
  - determining status of a network connection on a physical data link between said home network device and said network; and
  - generating a visual indicator at said home network device indicative of said status of said network connection.
2. The method of claim 1, wherein at least a portion of said network is a wide area network, and wherein said home network device is an access point to said wide area network for a local area network disposed in a small office/home office (SOHO) environment.
3. The method of claim 2, wherein said wide area network is in communication with the Internet.
4. The method of claim 2, wherein said network connection facilitates communication between said home network device and a host on said wide area network.
5. The method of claim 4, wherein said determining step comprises:
  - sending an echo request over said network connection from said home network device to said host; and
  - monitoring said network connection for an echo reply from said host in response to said echo request.
6. The method of claim 5, wherein said network connection is implemented using a transmission control protocol/internet protocol (TCP/IP), and wherein said echo request is sent using an internet control message protocol (ICMP).
7. The method of claim 5, further comprising periodically repeating said step of sending an echo request.

8. The method of claim 5, wherein said visual indicator is displayed in a first format in response to presence of said echo reply and in a second format in response to absence of said echo reply.
9. The method of claim 5, wherein said network connection facilitates communication between said home network device and another host on said wide area network, and wherein said determining step further comprises:
  - in response to absence of said echo reply, sending another echo request over said network connection from said home network device to said other host; and
  - monitoring said network connection for another echo reply from said other host in response to said other echo request.
10. The method of claim 9, wherein said visual indicator is displayed in a first format in response to presence of at least one of said echo reply and said other echo reply, and in a second format in response absence of both of said echo reply and said other echo reply.
11. The method of claim 9, wherein said host comprises one of an internet gateway and a domain name server (DNS), and said other host comprises the other of said internet gateway and said DNS.
12. The method of claim 4, wherein said step of determining comprises:
  - monitoring data traffic between said home network device and said host over said network connection;
  - in response to absence of said data traffic, sending an echo request over said network connection from said home network device to said host; and
  - in response to said echo request, monitoring said network connection for an echo reply from said host.
13. The method of claim 12, wherein said visual indicator is displayed in a first format in response to presence of at least one of said data traffic and said echo

reply, and a second format in response to absence of both said data traffic and said echo reply.

14. The method of claim 2, further comprising:

determining status of a local network connection on a local physical data link between said home network device and said local area network; and  
generating another visual indicator at said home network device indicative of said status of said local network connection.

15. The method of claim 1, wherein said home network device includes at least one light-emitting diode (LED), and wherein said step of generating comprises:

configuring said at least one LED to display said visual indicator.

16. The method of claim 15, wherein said visual indicator is defined by at least one of a color configuration of said at least one LED and a frequency of light emission of said at least one LED.

17. The method of claim 1, wherein said home network device includes at least one web page stored therein, and wherein step of generating comprises:

configuring said at least one web page to display said visual indicator.

18. The method of claim 17, wherein said visual indicator is defined by at least one of a graphical attribute, a textual attribute, and a static/dynamic attribute.

19. The method of claim 1, wherein said step of generating comprises:

creating an electronic message for transmission to a computer to display said visual indicator.

20. A home network device, comprising:

an interface for communicating with a network over a physical data link;  
a processor for determining status of a network connection on said physical data link; and

display circuitry for displaying a visual indicator indicative of said status of said network connection.

21. The home network device of claim 20, wherein at least a portion of said network is a wide area network, and wherein said home network device is an access point to said wide area network for a local area network disposed in a small office/home office (SOHO) environment, and wherein said interface comprises:

a wide area network interface for communicating with said wide area network; and

a local area network interface for communicating with said local area network.

22. The home network device of claim 21, further comprising:

a router for routing communication between hosts on said wide area network interface and local hosts on said local area network interface over said network connection.

23. The home network device of claim 21, further comprising:

a modem for modulating and demodulating data on said physical data link.

24. The home network device of claim 20, wherein said display circuitry comprises at least one light emitting diode (LED) configured to display said visual indicator.

25. The home network device of claim 20, further comprising:

a memory for storing at least one web page;

wherein said processor is further configured to process said at least one web page to implement said visual indicator thereon.

26. A computer readable carrier including program instructions that instruct a computer to perform a method of:

determining status of a network connection on a physical data link between said home network device and said network; and generating a visual indicator at said home network device indicative of said status of said network connection.

27. The computer readable carrier of claim 26, wherein at least a portion of said network is a wide area network, wherein said home network device is an access point to said wide area network for a local area network disposed in a small office/home office (SOHO) environment, said network connection facilitating communication between said home network device and a host on said wide area network, and wherein said determining step comprises:

sending an echo request over said network connection from said home network device to said host; and  
monitoring said network connection for an echo reply from said host in response to said echo request.

28. A home network system, comprising:

a modem for communicating with a wide area network via a physical data link;

a router having a wide area network interface for communicating with said modem and a local area network interface for communicating with a local network;

a processor for determining status of a network connection on said physical data link; and

display circuitry for displaying a visual indicator indicative of said status of said network connection.

29. The home network system of claim 28, wherein said wide area network is in communication with the Internet, and wherein said router is an access point to the Internet for said local network.

30. The home network system of claim 28, wherein said display circuitry comprises at least one light emitting diode (LED) configured to display said visual indicator.